

## ABSTRACT

The present invention comprises methods, compositions and apparatus for cleaning the surfaces within vessels that have restricted points of entry, and in particular, the surfaces within oxygen converters and oxygen cylinders. These oxygen converters and oxygen cylinders are components of the onboard oxygen supply systems of aircraft. A surfactant and a solvent are mixed to form a cleaning composition that is boiled at reduced pressure and increased temperature within the oxygen converter or oxygen cylinder. The oxygen converter or oxygen cylinder is rinsed with pure solvent, and the rinse fluid is measured to determine the level of contaminants. Dry air is forced through the oxygen converter or oxygen cylinder to remove remaining solvent. The cleaning composition may comprise a fluorocarbon solvent and a fluorosurfactant.